DATA VALIDATION REPORT

Gold King Mine Release Incident

SAMPLE DELIVERY GROUP: 680-117253-3

Prepared by

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I. INTRODUCTION

Task Order Title:	Gold King Mine Release Incident
Project No.:	20408.012.001.0274.00 20408.012.001.0267.00
Sample Delivery Group:	680-117253-3
EPA Project Manager:	Steve Way
Weston Project Manager:	Dave Robinson
TDD No.:	0001/1508-04
Matrix:	Water
QC Level:	Stage 2A
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica- Savannah

Table 1. Sample Identification

Location ID	*Lab Sample Name*	*Matrix Type*	*Collection Date*	*Method*
CC06_092815_0950	680-117253-19	Water	9/28/15 9:50 AM	200.7, 200.8, 2320B, 2340B, 245.1, 300.0, 4500
GSP1_092815_1118	680-117253-20	Water	9/28/15 11:18 AM	200.7, 200.8, 2320B, 2340B, 245.1, 300.0, 4500

II. Sample Management

Anomalies regarding sample management are noted below. The samples were received within the temperature limits of 4°C ±2°C. The samples were received intact, on ice, and properly preserved. The chains-of-custody (COCs) were appropriately signed and dated by field and laboratory personnel. The presence or absence of custody seals on the cooler was not specifically noted.

The following issues were noted:

- The original data package did not contain results for the dissolved magnesium reported in the MS/MSD. A revised report was received from the laboratory on 10/12/2015.
- Dissolved hardness was requested on the COC. Per previous instruction, the laboratory only provided total hardness.
- The COCs did not list CLP sample IDs, and none were provided. The laboratory logged the samples per the location IDs on the COCs.
- The presence or absence of sample tags was not noted in the case narrative, and sample tags were not listed on the COCs.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
UB	The analyte was detected in the sample and in either the associated laboratory blank or field blank. If detected below the reporting limit (RL) the analyte result was reported as non-detected at the RL due to blank contamination. If detected above the RL, the analyte result was reported as non-detected at the reported result due to blank contamination.	The analyte was detected in the sample and in either the associated laboratory blank or field blank. If detected below the reporting limit (RL) the analyte result was reported as non-detected at the RL due to blank contamination. If detected above the RL, the analyte result was reported as non-detected at the reported result due to blank contamination.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential positive bias.
J-	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential negative bias.

Qualifier	Organics	Inorganics
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
UJB	The analyte was detected in the sample and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at either the RL or the reported result. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The analyte was detected in the sample and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at either the RL or the reported result. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995 or calibration was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
L1	LCS/LCSD RPD was outside control limits.	LCS/LCSD RPD was outside control limits.
Q	MS/MSD recovery was poor.	MS recovery was poor.
Q1	MS/MSD RPD was outside control limits.	MS/MSD RPD was outside control limits.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tune was not compliant.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
F1	Field duplicate results were outside the control limit.	Field duplicate results were outside the control limit.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.

Qualifier	Organics	Inorganics
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. Contract Laboratory Program Statement of Work for Inorganic Superfund Methods, 200.7, 200.8, 245.1—Metals and Mercury

Reviewed By: P. Meeks
Date Reviewed: October 1, 2015

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *Sampling and Analysis Plan/Quality Assurance Project Plan for Gold King Mine Release, Silverton, San Juan County, Colorado* (2015), *United States Environmental Protection Agency Contract Laboratory Program Statement of Work for Inorganic Superfund Methods, EPA Methods 200.7, 200.8 and 245.1*, and the *National Functional Guidelines for Inorganic Superfund Data Review* (2010).

- Holding Times: The analytical holding times, 28 days for mercury and six months for the remaining metals, was met.

- Analytical Method Blanks: There were detects reported in the method blanks but they were insufficient to qualify the site samples.

- Laboratory Control Samples (LCS): The recoveries were within laboratory control limits of 85-115%.

- Laboratory Duplicates: No laboratory duplicate analyses were performed on a sample in this SDG. Method precision was evaluated based on matrix spike/matrix spike duplicate results.

- Matrix Spike/Matrix Spike Duplicate (MS/MSD): MS/MSD analyses were performed on the samples below.

Parent Sample	Analysis
GSP1_092815_1118	200.7 and 200.8 (total), mercury (dissolved)
CC06_092815_0950	200.7 and 200.8 (dissolved), mercury (total)

Results were not assessed when the native concentration was more than 4× the spike amount. Dissolved potassium (146%) and dissolved sodium (300%) were recovered above the control limit in the MSD only and both recoveries for dissolved beryllium were above the control limit at 158%, each; therefore, detects for these analytes were qualified as estimated with a potential high bias (J+). Nondetects were not qualified for the high

recoveries. The remaining recoveries were within the laboratory control limits of 75-125% for the 200.7 analytes and within 70-130% for mercury and the 200.8 analytes. The RPDs were ≤20%.

The recoveries and RPD were not reported for dissolved magnesium. The reviewer checked the parent sample result for dissolved magnesium and found it was >4× the spike amount; therefore, the results for this analyte were not assessed. Subsequently, the laboratory issued a revised report with the missing recoveries and RPDs.

- Post Digestion Spike (PDS): There were no PDS analyses performed on a sample in this SDG.

- Serial Dilution: There were no serial dilution analyses performed in this SDG.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: No field blank or equipment rinsate samples were identified in this SDG.

    - Field Duplicates: There were no field duplicate samples identified in this SDG.

B. VARIOUS EPA METHODS—General Chemistry

Reviewed By: P. Meeks
Date Reviewed: October 1, 2015

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *Sampling and Analysis Plan/Quality Assurance Project Plan for Gold King Mine Release, Silverton, San Juan County, Colorado* (2015), *United States Environmental Protection Agency Contract Laboratory Program Statement of Work for Inorganic Superfund Methods, EPA Method 300.0, Standard Methods for the Examination of Water and Wastewater 2340B, 2320B, and 4500 H+*, and the *National Functional Guidelines for Superfund Inorganic Data Review* (2010).

- Holding Times: Nitrate-N was analyzed beyond the holding time in sample CC06_092815_0950; therefore, nondetected nitrate-N in the sample was qualified as estimated (UJ). The pH measurements were performed in a fixed laboratory rather than on-site; therefore all pH results were qualified as estimated (J), as the analysis was not conducted in the field. No bias was assigned as the effect on the pH result could not be ascertained. The remaining holding times, as listed below, were met.

- Hardness (2340B) – 6 months
- Alkalinity (2320B) – 14 days
- Nitrate-N (300.0) - 24 hours
- Remaining anions (300.0) – 28 days
- pH (4500 H+) – ASAP

- Analytical Method Blanks: There were no detects in the method blanks.

- Laboratory Control Samples: The analytes utilized in the calculation of hardness were recovered within the metals control limits. The pH recovery was within the laboratory control limits of 63-158% but exceeded the EPA Method 150.1 check standard control limit of ±0.05 at +0.13 pH units; therefore, the pH results were qualified as estimated with a potential high bias (J+). Alkalinity recoveries were within the laboratory control limits of 80-120%, anion recoveries were within the laboratory control limits of 90-110%, and alkalinity and anion RPDs were within the QAPP control limit of ≤20%.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on sample M34_092815 (in related SDG 117253-2) for all analytes except nitrate-N. The pH RPD was within the laboratory control limit of ≤40% and within the EPA Method 150.1 control limit of ±0.05 pH units. The RPDs for the remaining analytes were within the QAPP control limit of ≤20%.

- Matrix Spike/Matrix Spike Duplicate (MS/MSD): MS/MSD analyses are applicable only to the anion analysis. MS/MSD analyses were performed on sample M34_092815 (in related SDG 117253-2) for chloride, fluoride, and sulfate. Results were not assessed when the native concentration was more than 4× the spike amount. Recoveries were within the laboratory control limits of 80-120% and RPDs were within the QAPP control limit of ≤20%.

- Field QC Samples: Field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified in this SDG.

Validated Sample Result Forms: 680-117253-3

Analysis Method 200.7 Rev 4.4

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	25000	200	24	ug/L	^		
Aluminum, Dissolved	D	7429-90-5	23000	200	24	ug/L			
Calcium	T	7440-70-2	360000	500	25	ug/L	B		
Calcium, Dissolved	D	7440-70-2	360000	500	25	ug/L			
Iron	T	7439-89-6	100000	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	74000	50	17	ug/L			
Magnesium	T	7439-95-4	24000	5000	330	ug/L			
Magnesium, Dissolved	D	7439-95-4	23000	5000	330	ug/L			
Potassium	T	7440-09-7	2500	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	2300	1000	17	ug/L		J+	Q
Sodium	T	7440-23-5	4400	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	4000	1000	480	ug/L		J+	Q

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	10000	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	7000	200	24	ug/L			
Calcium	T	7440-70-2	400000	500	25	ug/L	B		
Calcium, Dissolved	D	7440-70-2	400000	500	25	ug/L			
Iron	T	7439-89-6	23000	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	12000	50	17	ug/L			
Magnesium	T	7439-95-4	24000	5000	330	ug/L			
Magnesium, Dissolved	D	7439-95-4	24000	5000	330	ug/L			
Potassium	T	7440-09-7	2200	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	2100	1000	17	ug/L		J+	Q
Sodium	T	7440-23-5	5600	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	5400	1000	480	ug/L		J+	Q

Analysis Method 200.8

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	2.9	1	0.4	ug/L			
Antimony, Dissolved	D	7440-36-0	0.54	1	0.4	ug/L	J	J	
Arsenic	T	7440-38-2	37	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	5.9	1	0.37	ug/L			
Barium	T	7440-39-3	11	2	0.14	ug/L	B		
Barium, Dissolved	D	7440-39-3	10	2	0.14	ug/L			
Beryllium	T	7440-41-7	15	40	15	ug/L	U	U	
Beryllium, Dissolved	D	7440-41-7	15	40	15	ug/L	U F1	U	
Cadmium	T	7440-43-9	71	0.5	0.043	ug/L			
Cadmium, Dissolved	D	7440-43-9	70	0.5	0.043	ug/L	B		
Chromium	T	7440-47-3	3.6	2	1	ug/L			
Chromium, Dissolved	D	7440-47-3	2.1	2	1	ug/L			
Cobalt	T	7440-48-4	94	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	94	0.4	0.12	ug/L			
Copper	T	7440-50-8	5700	100	50	ug/L			
Copper, Dissolved	D	7440-50-8	5700	100	50	ug/L			
Lead	T	7439-92-1	38	0.3	0.06	ug/L	B		
Lead, Dissolved	D	7439-92-1	28	0.3	0.06	ug/L			
Manganese	T	7439-96-5	32000	250	120	ug/L			
Manganese, Dissolved	D	7439-96-5	32000	250	120	ug/L			
Molybdenum	T	7439-98-7	4.1	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	0.73	1	0.45	ug/L	J	J	
Nickel	T	7440-02-0	55	1	0.4	ug/L			
Nickel, Dissolved	D	7440-02-0	55	1	0.4	ug/L			
Selenium	T	7782-49-2	2.5	2	0.58	ug/L			
Selenium, Dissolved	D	7782-49-2	1.7	2	0.58	ug/L	J	J	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.28	0.2	0.1	ug/L			
Thallium, Dissolved	D	7440-28-0	0.27	0.2	0.1	ug/L			
Vanadium	T	7440-62-2	25	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	3.4	1	0.3	ug/L			
Zinc	T	7440-66-6	23000	2000	280	ug/L			
Zinc, Dissolved	D	7440-66-6	23000	2000	280	ug/L			

Analysis Method 200.8

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	4.7	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	0.37	1	0.37	ug/L	U	U	
Barium	T	7440-39-3	15	2	0.14	ug/L	B		
Barium, Dissolved	D	7440-39-3	14	2	0.14	ug/L			
Beryllium	T	7440-41-7	15	40	15	ug/L	U	U	
Beryllium, Dissolved	D	7440-41-7	3.2	0.4	0.15	ug/L		J+	Q
Cadmium	T	7440-43-9	54	0.5	0.043	ug/L			
Cadmium, Dissolved	D	7440-43-9	51	0.5	0.043	ug/L	B		
Chromium	T	7440-47-3	1	2	1	ug/L	U	U	
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	86	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	81	0.4	0.12	ug/L			
Copper	T	7440-50-8	2000	1	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	1600	1	0.5	ug/L			
Lead	T	7439-92-1	8.9	0.3	0.06	ug/L	B		
Lead, Dissolved	D	7439-92-1	0.99	0.3	0.06	ug/L			
Manganese	T	7439-96-5	28000	250	120	ug/L			
Manganese, Dissolved	D	7439-96-5	27000	250	120	ug/L			
Molybdenum	T	7439-98-7	0.79	1	0.45	ug/L	J	J	
Molybdenum, Dissolved	D	7439-98-7	0.45	1	0.45	ug/L	U	U	
Nickel	T	7440-02-0	43	1	0.4	ug/L			
Nickel, Dissolved	D	7440-02-0	40	1	0.4	ug/L			
Selenium	T	7782-49-2	1	2	0.58	ug/L	J	J	
Selenium, Dissolved	D	7782-49-2	1.1	2	0.58	ug/L	J	J	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.22	0.2	0.1	ug/L			
Thallium, Dissolved	D	7440-28-0	0.2	0.2	0.1	ug/L			
Vanadium	T	7440-62-2	3.6	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	0.3	1	0.3	ug/L	U	U	
Zinc	T	7440-66-6	17000	2000	280	ug/L			
Zinc, Dissolved	D	7440-66-6	16000	2000	280	ug/L			

Analysis Method 2320B-2011

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	5	5	5	mg/L	U	U	

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	5	5	5	mg/L	U	U	

Analysis Method 2340B-2011

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	1000	3.3	3.3	mg/L			

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	1100	3.3	3.3	mg/L			

Analysis Method 245.1

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Analysis Method 300.0

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chloride	T	16887-00-6	0.44	1	0.4	mg/L	J	J	
Fluoride	T	16984-48-8	9.8	0.2	0.08	mg/L			
Nitrate as N	T	14797-55-8	0.046	0.1	0.046	mg/L	U H	UJ	H
Sulfate	T	14808-79-8	1500	50	20	mg/L			

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chloride	T	16887-00-6	0.37	0.5	0.2	mg/L	J	J	
Fluoride	T	16984-48-8	6.8	0.1	0.04	mg/L			
Nitrate as N	T	14797-55-8	0.023	0.05	0.023	mg/L	U	U	
Sulfate	T	14808-79-8	1300	50	20	mg/L			

Analysis Method 4500 H+ B-2011

Sample Name CC06_092815_0950 **Matrix Type:** Water

Lab Sample Name: 680-117253-19 **Sample Date:** 9/28/2015 9:50:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
pH	T	STL00204	3.19			SU	HF	J+	H, L

Sample Name GSP1_092815_1118 **Matrix Type:** Water

Lab Sample Name: 680-117253-20 **Sample Date:** 9/28/2015 11:18:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
pH	T	STL00204	4.58			SU	HF	J+	H, L